This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A patient physiologic monitoring assembly comprising:

a plurality of sensors ~~generating~~ that generate a real-time physiologic data stream, said real-time physiologic data stream including a plurality of physiologic variables;

a first logic rule set including a plurality of logic rules for interpreting the plurality of physiologic variables;

a second logic rule set including a plurality of logic rules for interpreting the physiologic variables; and

a controller ~~receiving~~ that receives said real-time physiologic data stream, said controller including a logic adapted to

cross reference said plurality of physiologic variables with the first logic rule set and second logic rule set; and

generate at least a first diagnostic interpretation of said plurality of physiologic variables utilizing said first logic rule set and a second diagnostic interpretation of said plurality of physiologic variable utilizing the said second logic rule set.

2. (Previously Presented) A patient physiologic monitoring assembly as described in claim 1, wherein said logic is further adapted to display said first and second diagnostic interpretations on a display element.

3. (Previously Presented) A patient physiologic monitoring assembly as described in claim 1, wherein said logic is further adapted to select said first logic rule set and said second logic rule set from a rules database, said rules database including a plurality of logic rule sets.

4.   (Cancelled)

5.   (Previously Presented) A patient physiologic monitoring assembly as described in claim 3, wherein said logic is further adapted to modify one of said plurality of logic rules within said first logic rule set.

6.   (Original) A patient physiologic monitoring assembly as described in claim 5, wherein said modification comprises editing one of said plurality of logic rules.

7.   (Original) A patient physiologic monitoring assembly as described in claim 5, wherein said modification comprises deleting one of said plurality of logic rules.

8.   (Original) A patient physiologic monitoring assembly as described in claim 5, wherein said modification comprises adding a new logic rule to said first logic rule set.

9.   (Previously Presented) A patient physiologic monitoring assembly as described in claim 3, wherein said logic is further adapted to add a new logic rule set to said rules database.

10.   (Original) A patient physiologic monitoring assembly as described in claim 1, further comprising a plurality of networked medical facilities in communication with said controller such that said first logic rule set may be received from any of said plurality of networked medical facilities.

11.   (Currently Amended) A method for providing diagnostic aid to a clinician monitoring the medical condition of a patient, the method comprising:

storing a ~~plurality of sets~~ first and a second set of rule-based algorithms, the first and second sets of rule-based algorithms, ~~capable of~~ generating a different diagnostic ~~interpretation~~ interpretations of the same physiological data;

acquiring a physiological data stream from at least one sensor connected to the patient;

applying with a logic of a controller at least one rule-based algorithm from a the first set of the rule-based algorithms to the acquired physiological data stream;

generating a first diagnostic interpretation with the controller based on the application of the at least one rule-based algorithm from the first set to the acquired physiological data stream;

displaying the first diagnostic interpretation to the clinician;

applying with the logic at least one rule-based algorithm from a the second set of rule-based algorithms to the acquired physiological data stream;

generating with the controller a second diagnostic interpretation based on the application of the at least one rule-based algorithm from the second set to the acquired physiological data stream; and

displaying the second diagnostic interpretation to the clinician.

12.   (Previously Presented) The method of claim 11, further comprising determining the first set of rule based algorithms to apply to the acquired physiological data stream   comprising displaying a list of choices to a clinician and receiving a clinician input indicative of a selection made by the clinician.

13.   (Withdrawn) The method of claim 11, further comprising determining the first set of rule-based algorithm to apply total acquired physiological data stream   comprising receiving the real-time physiological data stream, and selecting a rule-based algorithm to apply based on the electronic logical analysis of the received real-time physiological data stream.

14.   (Withdrawn) The method of claim 13, wherein acquiring a real-time physiological data stream comprises acquiring vital signs data.

15.   (Cancelled)

16.   (Currently Amended) The method of claim 11, further comprising:

storing the ~~plurality~~ first and second set of rule-based algorithms at a ~~geographically remote location~~ data storage device remote to the controller; and

transferring the first and second set of rule-based ~~algorithm that is to be applied~~ algorithms from the ~~remote location~~ data storage device.

17.   (Original) The method of claim 11, wherein generating a response based on the application of at least one of the plurality of rule-based algorithms comprises generating an alarm.

18. - 27. (Cancelled)

28.   (Previously Presented) The method of claim 72, further comprising generating a certainty score for each of the general diagnostic interpretations.

29. - 67. (Cancelled)

68.   (Previously Presented) A patient physiologic monitoring assembly as described in claim 2, wherein said logic is further adapted to receive a selection of the first diagnostic interpretation or the second diagnostic interpretation from a clinician.

69.   (Previously Presented) The method of claim 11wherein the plurality of rules of the first rule set are directed towards a general diagnostic interpretation identifying a target body system and the plurality of rules of the second rule set are directed towards creating a specific diagnostic interpretation of a condition within a targeted body system.

70.   (Cancelled)

71.   (Currently Amended) The method of claim 69 wherein the general diagnostic interpretation identifies the cardiac system and the specific diagnostic interpretation identifies a cardiological condition.[[.]]

72.   (Currently Amended) A method for diagnosing the medical condition of a patient, the method comprising:

     acquiring at least one real-time physiological data stream;

     applying, with a logic, a first rule set comprising a plurality of rule-based algorithms to the acquired at least one real-time physiological data stream, the first rule set comprising rule-based algorithms directed to producing at least one general diagnostic interpretation of the at least one real-time physiological data stream based on the application of the first rule set;

     evaluating with the logic the at least one general diagnostic interpretation to select a second rule set comprising a plurality of rule-based algorithms directed to producing at least one specific diagnostic interpretation;

     applying with the logic the selected second rule set to the at least one real-time physiological data stream;

     generating with the logic at least one specific diagnostic interpretation of the at least one real-time physiological data stream based on the application of the second rule set;

     displaying at least one of the generated specific diagnostic interpretations.

73. (Previously Presented) The method of claim 72 wherein at least one general diagnostic interpretation identifies the cardiac system and the at least one specific diagnostic interpretation is diagnosis of a specific cardiological condition.

74. (Currently Amended) A method of monitoring the medical condition of a patient, comprising:

storing a plurality of rule sets in a geographically diffuse manner between a plurality of data storage devices, each of the plurality of geographically diffuse rule sets being configured to produce an independent diagnostic interpretation when applied to the same physiological data;

acquiring with a controller real-time physiological data streams from a plurality of sensors coupled to the patient, the plurality of sensors acquiring real-time physiological data streams relating to a plurality of patient characteristics;

selecting with a logic of the controller a first rule set from the plurality of geographically diffuse rule sets to be applied to the real-time physiological data streams;

applying with the logic the selected first rule set to the acquired real-time physiological data streams;

generating with the controller a first diagnostic interpretation based on the application of the first rule set to the real-time physiological data streams;

selecting with the logic a second rule set from the plurality of geographically diffuse rule sets to be applied to the real-time physiological data streams;

applying with the logic the second rule set to the acquired real-time physiological data streams; and

generating with the controller a second diagnostic interpretation based on the application of the second rule set to the real-time physiological data streams.

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75.   (Previously Presented) The method of monitoring the medical condition of a patient of claim 74 wherein the first rule set generates a general diagnostic interpretation and the second rule set generates a specific diagnostic interpretation.

76.   (Currently Amended) A system for using rule based algorithms, comprising:

a data acquisition device configured to acquire a real-time physiological data stream from a patient through a plurality of electrodes coupled to the patient;

a controller that receives and processes the acquired real-time physiological data stream;

at least one remote-database remotely located from the data acquisition device, the at least one remote-database comprising a plurality of rule sets, each comprising a plurality of rule-based algorithms;

a network connection connected to the controller and the at least one remote-database such that the plurality of rule sets are transferred from the at least one remote-database to the controller;

a first logic that selects a first rule set from the at least one remote-database to be applied to the acquired real-time physiological data stream;

a second logic that selects a second rule set from the at least one remote-database to be applied to the acquired real-time physiological data stream;

wherein the controller receives the selected first rule set and second rule set, applies the first rule set to the acquired real-time physiological data stream to produce a first diagnostic interpretation, and applies the second rule set to the acquired real-time physiological data stream to produce a second diagnostic interpretation of the acquired data.

77.   (Previously Presented) The system of claim 76 further comprising:

a rule set acquisition logic that acquires the first rule set and the second rule set from the at least one remote database; and

a bill generator connected to the rule set acquisition logic such that the bill generator is notified of the acquired first and second rule sets and generates a bill for the acquired first and second rule sets at a predetermined fee.

78.   (Previously Presented) The system of claim 77 wherein the real-time physiological data stream is a biopotential signal.

79.   (Previously Presented) The system of claim 76 wherein the first rule set is selected based on an analysis of the acquired real-time physiological data, and the second rule set is selected based on the selection of the first rule set.

80.   (Previously Presented) The system of claim 79 wherein the first logic receives a clinician selection of the first rule set and the second logic receives a clinician selection of the second rule set.

81.   (Previously Presented) The method of claim 72 wherein the at least one real-time physiological data stream is a biopotential signal.

82.   (Currently Amended) The method of claim 81 further comprising the steps of:
        the controller retrieving the first rule set from a remotely located database comprising a plurality of rule sets; and
        the controller retrieving the second rule set from a remotely located database comprising a plurality of rule sets.

83.   (Currently Amended) The method of claim 82 further comprising the steps of:
        prompting a clinician for a selection of the first rule set;
        receiving a clinician for a selection of the first rule set;

prompting a clinician for a selection of the second rule set;

receiving a clinician ~~for a~~ selection of the second rule set.

84.   (Previously Presented) The method of claim 12 further comprising:

determining the second set of rule-based algorithms to apply to the acquired physiological data stream;

displaying a list of choices to a clinician; and

receiving a clinician input indicative of a selection made by the clinician.